

UNITED STATES OF AMERICA:  
WAR DEPARTMENT.

# MONTHLY WEATHER REVIEW.

(GENERAL WEATHER SERVICE OF THE UNITED STATES.)

DECEMBER, 1886.

## CONTENTS.

	Page.		Page.
INTRODUCTION.....	335	ATMOSPHERIC ELECTRICITY.—Auroras; Electrometer readings.....	350
ATMOSPHERIC PRESSURE.—Barometric ranges; Areas of high pressure; Areas of low pressure.....	335	TABLES.—Signal Service data; Voluntary observer's data.....	351
NORTH ATLANTIC STORMS.....	338	OPTICAL PHENOMENA.—Solar halos; Lunar halos; Mirage ...	355
OCEAN ICE.....	342	MISCELLANEOUS PHENOMENA.—Forest and prairie fires; Meteors; Migration of birds; Polar bands; Sun spots; Water spouts.....	356
FOG.....	342	VERIFICATIONS.—Indications; Cautionary signals; Cold-wave signals; Railway weather signals; Sunsets.....	357
TEMPERATURE OF THE AIR.—Ranges; Deviations from the normal; Frosts; Ice.....	342	STATE WEATHER SERVICES.....	357
TEMPERATURE OF WATER.....	344	NOTES AND EXTRACTS.—Dipping of the freezing point plane before thunder-storms; Summary by, Prof. F. H. Snow; Frequency of lightning strokes.....	360
PRECIPITATION.—Deviations from the normal; Snow; Hail; Sleet.....	345		
WINDS.....	349		
INLAND NAVIGATION.—State of water in rivers and harbors ...	349		

PREPARED UNDER THE DIRECTION OF  
CAPT. A. W. GREELY, 5TH CAVALRY, A. S. O., AND ASSISTANT,  
ACTING CHIEF SIGNAL OFFICER, U. S. ARMY,

BY H. H. C. DUNWOODY,  
1ST LIEUTENANT, 4TH ARTILLERY, U. S. A., A. S. O. AND ASSISTANT.

*PUBLISHED BY AUTHORITY OF THE SECRETARY OF WAR.*

WASHINGTON CITY:  
SIGNAL OFFICE.  
1887.